## SEQUENCE LISTING

- <110> Chipman, Stewart D.
  Schooley, Kenneth A.
  Born, Teresa L.
  DuBose, Robert F.
- <120> METHODS OF USING IMXP-888 AND IMXP-888 ANTAGONISTS
- <130> 3081-A
- <140> --to be assigned--
- <141> 2001-11-20
- <150> US 60/252,785
- <151> 2000-11-22
- <160> 3
- <170> PatentIn version 3.1
- <210> 1
- <211> 529
- <212> PRT
- <213> Mus musculus
- <400> 1
- Ser Ala Glu Ala Ala Arg Gly Pro Pro Arg Met Ala Asp Lys Val Val 20 25 30
- Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg Leu Gln Cys Pro 35 40 45
- Val Glu Gly Asp Pro Pro Pro Leu Thr Met Trp Thr Lys Asp Gly Arg 50 55 60
- Thr Ile His Ser Gly Trp Ser Arg Phe Arg Val Leu Pro Gln Gly Leu 65 70 75 80
- Lys Val Lys Glu Val Glu Ala Glu Asp Ala Gly Val Tyr Val Cys Lys 85 90 95
- Ala Thr Asn Gly Phe Gly Ser Leu Ser Val Asn Tyr Thr Leu Ile Ile 100 105 110
- Met Asp Asp Ile Ser Pro Gly Lys Glu Ser Pro Gly Pro Gly Gly Ser 115 120 125

| Ser        | Gly<br>130 | Gly        | Gln        | Glu        | Asp        | Pro<br>135 | Ala        | Ser        | Gln        | Gln        | Trp<br>140 | Ala        | Arg        | Pro        | Arg        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Phe<br>145 | Thr        | Gln        | Pro        | Ser        | Lys<br>150 | Met        | Arg        | Arg        | Arg        | Val<br>155 | Ile        | Ala        | Arg        | Pro        | Val<br>160 |
| Gly        | Ser        | Ser        | Val        | Arg<br>165 | Leu        | Lys        | Cys        | Val        | Ala<br>170 | Ser        | Gly        | His        | Pro        | Arg<br>175 | Pro        |
| Asp        | Ile        | Met        | Trp<br>180 | Met        | Lys        | Asp        | Asp        | Gln<br>185 | Thr        | Leu        | Thr        | His        | Leu<br>190 | Glu        | Ala        |
| Ser        | Glu        | His<br>195 | Arg        | Lys        | Lys        | Lys        | Trp<br>200 | Thr        | Leu        | Ser        | Leu        | Lys<br>205 | Asn        | Leu        | Lys        |
| Pro        | Glu<br>210 | Asp        | Ser        | Gly        | Lys        | Tyr<br>215 | Thr        | Cys        | Arg        | Val        | Ser<br>220 | Asn        | Lys        | Ala        | Gly        |
| Ala<br>225 | Ile        | Asn        | Ala        | Thr        | Tyr<br>230 | Lys        | Val        | Asp        | Val        | Ile<br>235 | Gln        | Arg        | Thr        | Arg        | Ser<br>240 |
| Lys        | Pro        | Val        | Leu        | Thr<br>245 | Gly        | Thr        | His        | Pro        | Val<br>250 | Asn        | Thr        | Thr        | Val        | Asp<br>255 | Phe        |
| Gly        | Gly        | Thr        | Thr<br>260 | Ser        | Phe        | Gln        | Cys        | Lys<br>265 | Val        | Arg        | Ser        | Asp        | Val<br>270 | Lys        | Pro        |
| Val        | Ile        | Gln<br>275 | Trp        | Leu        | Lys        | Arg        | Val<br>280 | Glu        | Tyr        | Gly        | Ser        | Glu<br>285 | Gly        | Arg        | His        |
| Asn        | Ser<br>290 | Thr        | Ile        | Asp        | Val        | Gly<br>295 | Gly        | Gln        | Lys        | Phe        | Val<br>300 | Val        | Leu        | Pro        | Thr        |
| Gly<br>305 | Asp        | Val        | Trp        | Ser        | Arg<br>310 | Pro        | Asp        | Gly        | Ser        | Tyr<br>315 | Leu        | Asn        | Lys        | Leu        | Leu<br>320 |
| Ile        | Ser        | Arg        | Ala        | Arg<br>325 | Gln        | Asp        | Asp        | Ala        | Gly<br>330 | Met        | Tyr        | Ile        | Cys        | Leu<br>335 | Gly        |
| Ala        | Asn        | Thr        | Met<br>340 | Gly        | Tyr        | Ser        | Phe        | Arg<br>345 | Ser        | Ala        | Phe        | Leu        | Thr<br>350 | Val        | Leu        |
| Pro        | Asp        | Pro<br>355 | Lys        | Pro        | Pro        | Gly        | Pro<br>360 | Pro        | Met        | Ala        | Ser        | Ser<br>365 | Ser        | Ser        | Ser        |

| Thr                          | Ser<br>370   | Leu        | Pro        | Trp        | Pro        | Val<br>375 | Val        | Ile        | Gly        | Ile        | Pro<br>380 | Ala        | Gly        | Ala        | Val        |
|------------------------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Phe<br>385                   | Ile          | Leu        | Gly        | Thr        | Val<br>390 | Leu        | Leu        | Trp        | Leu        | Cys<br>395 | Gln        | Thr        | Lys        | Lys        | Lys<br>400 |
| Pro                          | Cys          | Ala        | Pro        | Ala<br>405 | Ser        | Thr        | Leu        | Pro        | Val<br>410 | Pro        | Gly        | His        | Arg        | Pro<br>415 | Pro        |
| Gly                          | Thr          | Ser        | Arg<br>420 | Glu        | Arg        | Ser        | Gly        | Asp<br>425 | Lys        | Asp        | Leu        | Pro        | Ser<br>430 | Leu        | Ala        |
| Val                          | Gly          | Ile<br>435 | Cys        | Glu        | Glu        | His        | Gly<br>440 | Ser        | Ala        | Met        | Ala        | Pro<br>445 | Gln        | His        | Ile        |
| Leu                          | Ala<br>450   | Ser        | Gly        | Ser        | Thr        | Ala<br>455 | Gly        | Pro        | Lys        | Leu        | Tyr<br>460 | Pro        | Lys        | Leu        | Tyr        |
| Thr<br>465                   | Asp          | Val        | His        | Thr        | His<br>470 | Thr        | His        | Thr        | His        | Thr<br>475 | Cys        | Thr        | His        | Thr        | Leu<br>480 |
| Ser                          | Cys          | Gly        | Gly        | Gln<br>485 | Gly        | Ser        | Ser        | Thr        | Pro<br>490 | Ala        | Cys        | Pro        | Leu        | Ser<br>495 | Val        |
| Leu                          | Asn          | Thr        | Ala<br>500 | Asn        | Leu        | Gln        | Ala        | Leu<br>505 | Cys        | Pro        | Glu        | Val        | Gly<br>510 | Ile        | Trp        |
| Gly                          | Pro          | Arg<br>515 | Gln        | Gln        | Val        | Gly        | Arg<br>520 | Ile        | Glu        | Asn        | Asn        | Gly<br>525 | Gly        | Arg        | Val        |
| Ser                          |              |            |            |            |            |            |            |            |            |            |            |            |            |            |            |
| <210<br><211<br><212<br><213 | L> 4<br>2> E | 138<br>PRT | nuscu      | ılus       |            |            |            |            |            |            |            |            |            |            |            |
| < 400                        | )> 2         | 2          |            |            |            |            |            |            |            |            |            |            |            |            |            |
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| Ser                          | Ala          | Glu        | Ala<br>20  | Ala        | Arg        | Asp        | Asp        | Ile<br>25  | Ser        | Pro        | Gly        | Lys        | Glu<br>30  | Ser        | Pro        |

Gly Pro Gly Gly Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser Gln Gln 35 40 45

| Trp        | Ala<br>50  | Arg        | Pro        | Arg        | Phe        | Thr<br>55  | Gln        | Pro        | Ser        | Lys        | Met<br>60  | Arg        | Arg        | Arg        | Val        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Ile<br>65  | Ala        | Arg        | Pro        | Val        | Gly<br>70  | Ser        | Ser        | Val        | Arg        | Leu<br>75  | Lys        | Cys        | Val        | Ala        | Ser<br>80  |
| Gly        | His        | Pro        | Arg        | Pro<br>85  | Asp        | Ile        | Met        | Trp        | Met<br>90  | Lys        | Asp        | Asp        | Gln        | Thr<br>95  | Leu        |
| Thr        | His        | Leu        | Glu<br>100 | Ala        | Ser        | Glu        | His        | Arg<br>105 | Lys        | Lys        | Lys        | Trp        | Thr<br>110 | Leu        | Ser        |
| Leu        | Lys        | Asn<br>115 | Leu        | Lys        | Pro        | Glu        | Asp<br>120 | Ser        | Gly        | Lys        | Tyr        | Thr<br>125 | Cys        | Arg        | Val        |
| Ser        | Asn<br>130 | Lys        | Ala        | Gly        | Ala        | Ile<br>135 | Asn        | Ala        | Thr        | Tyr        | Lys<br>140 | Val        | Asp        | Val        | Ile        |
| Gln<br>145 | Arg        | Thr        | Arg        | Ser        | Lys<br>150 | Pro        | Val        | Leu        | Thr        | Gly<br>155 | Thr        | His        | Pro        | Val        | Asn<br>160 |
| Thr        | Thr        | Val        | Asp        | Phe<br>165 | Gly        | Gly        | Thr        | Thr        | Ser<br>170 | Phe        | Gln        | Cys        | Lys        | Val<br>175 | Arg        |
| Ser        | Asp        | Val        | Lys<br>180 | Pro        | Val        | Ile        | Gln        | Trp<br>185 | Leu        | Lys        | Arg        | Val        | Glu<br>190 | Tyr        | Gly        |
| Ser        | Glu        | Gly<br>195 | Arg        | His        | Asn        | Ser        | Thr<br>200 | Ile        | Asp        | Val        | Gly        | Gly<br>205 | Gln        | Lys        | Phe        |
| Val        | Val<br>210 | Leu        | Pro        | Thr        | Gly        | Asp<br>215 |            | Trp        | Ser        | Arg        | Pro<br>220 | Asp        | Gly        | Ser        | Tyr        |
| Leu<br>225 | Asn        | Lys        | Leu        | Leu        | Ile<br>230 | Ser        | Arg        | Ala        | Arg        | Gln<br>235 | Asp        | Asp        | Ala        | Gly        | Met<br>240 |
| Tyr        | Ile        | Cys        | Leu        | Gly<br>245 | Ala        | Asn        | Thr        | Met        | Gly<br>250 | Tyr        | Ser        | Phe        | Arg        | Ser<br>255 | Ala        |
| Phe        | Leu        | Thr        | Val<br>260 | Leu        | Pro        | Asp        | Pro        | Lys<br>265 | Pro        | Pro        | Gly        | Pro        | Pro<br>270 | Met        | Ala        |
| Ser        | Ser        | Ser<br>275 | Ser        | Ser        | Thr        | Ser        | Leu<br>280 | Pro        | Trp        | Pro        | Val        | Val<br>285 | Ile        | Gly        | Ile        |

Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Val Leu Leu Trp Leu Cys Gln Thr Lys Lys Lys Pro Cys Ala Pro Ala Ser Thr Leu Pro Val Pro Gly His Arg Pro Pro Gly Thr Ser Arg Glu Arg Ser Gly Asp Lys Asp Leu Pro Ser Leu Ala Val Gly Ile Cys Glu Glu His Gly Ser Ala Met Ala Pro Gln His Ile Leu Ala Ser Gly Ser Thr Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp Val His Thr His Thr His Thr His Thr Cys Thr His Thr Leu Ser Cys Gly Gln Gly Ser Ser Thr Pro Ala Cys Pro Leu Ser Val Leu Asn Thr Ala Asn Leu Gln Ala Leu Cys Pro Glu Val Gly Ile Trp Gly Pro Arg Gln Gln Val Gly Arg Ile Glu Asn Asn Gly Gly Arg Val Ser <210> 3 <211> 504 <212> PRT <213> Homo sapiens <400> 3 Met Thr Pro Ser Pro Leu Leu Leu Leu Leu Pro Pro Leu Leu Leu Gly Ala Phe Pro Pro Ala Ala Ala Ala Arg Gly Pro Pro Lys Met Ala 

Asp Lys Val Val Pro Arg Gln Val Ala Arg Leu Gly Arg Thr Val Arg

| Leu        | Gln<br>50  | Cys        | Pro        | Val        | Glu        | Gly<br>55  | Asp        | Pro        | Pro        | Pro        | Leu<br>60  | Thr        | Met        | Trp        | Thr        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Lys<br>65  | Asp        | Gly        | Arg        | Thr        | Ile<br>70  | His        | Ser        | Gly        | Trp        | Ser<br>75  | Arg        | Phe        | Arg        | Val        | Leu<br>80  |
| Pro        | Gln        | Gly        | Leu        | Lys<br>85  | Val        | Lys        | Gln        | Val        | Glu<br>90  | Arg        | Glu        | Asp        | Ala        | Gly<br>95  | Val        |
| Tyr        | Val        | Cys        | Lys<br>100 | Ala        | Thr        | Asn        | Gly        | Phe<br>105 | Gly        | Ser        | Leu        | Ser        | Val<br>110 | Asn        | Tyr        |
| Thr        | Leu        | Val<br>115 | Val        | Leu        | Asp        | Asp        | Ile<br>120 | Ser        | Pro        | Gly        | Lys        | Glu<br>125 | Ser        | Leu        | Gly        |
| Pro        | Asp<br>130 | Ser        | Ser        | Ser        | Gly        | Gly<br>135 | Gln        | Glu        | Asp        | Pro        | Ala<br>140 | Ser        | Gln        | Gln        | Trp        |
| Ala<br>145 | Arg        | Pro        | Arg        | Phe        | Thr<br>150 | Gln        | Pro        | Ser        | Lys        | Met<br>155 | Arg        | Arg        | Arg        | Val        | Ile<br>160 |
| Ala        | Arg        | Pro        | Val        | Gly<br>165 | Ser        | Ser        | Val        | Arg        | Leu<br>170 | Lys        | Cys        | Val        | Ala        | Ser<br>175 | Gly        |
| His        | Pro        | Arg        | Pro<br>180 | Asp        | Ile        | Thr        | Trp        | Met<br>185 | Lys        | Asp        | Asp        | Gln        | Ala<br>190 | Leu        | Thr        |
| Arg        | Pro        | Glu<br>195 | Ala        | Ala        | Glu        | Pro        | Arg<br>200 | Lys        | Lys        | Lys        | Trp        | Thr<br>205 | Leu        | Ser        | Leu        |
| Lys        | Asn<br>210 | Leu        | Arg        |            | Glu        |            |            | Gly        | Lys        | Tyr        | Thr<br>220 |            | Arg        | Val        | Ser        |
| Asn<br>225 | Arg        | Ala        | Gly        | Ala        | Ile<br>230 | Asn        | Ala        | Thr        | Tyr        | Lys<br>235 | Val        | Asp        | Val        | Ile        | Gln<br>240 |
| Arg        | Thr        | Arg        | Ser        | Lys<br>245 | Pro        | Val        | Leu        | Thr        | Gly<br>250 | Thr        | His        | Pro        | Val        | Asn<br>255 | Thr        |
| Thr        | Val        | Asp        | Phe<br>260 | Gly        | Gly        | Thr        | Thr        | Ser<br>265 | Phe        | Gln        | Cys        | Lys        | Val<br>270 | Arg        | Ser        |
| Asp        | Val        | Lys<br>275 | Pro        | Val        | Ile        | Gln        | Trp<br>280 | Leu        | Lys        | Arg        | Val        | Glu<br>285 | Tyr        | Gly        | Ala        |

| Glu        | Gly<br>290 | Arg        | His        | Asn        | Ser        | Thr<br>295 | Ile        | Asp        | Val        | Gly        | Gly<br>300 | Gln        | Lys        | Phe        | Val        |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Val<br>305 | Leu        | Pro        | Thr        | Gly        | Asp<br>310 | Val        | Trp        | Ser        | Arg        | Pro<br>315 | Asp        | Gly        | Ser        | Tyr        | Leu<br>320 |
| Asn        | Lys        | Leu        | Leu        | Ile<br>325 | Thr        | Arg        | Ala        | Arg        | Gln<br>330 | Asp        | Asp        | Ala        | Gly        | Met<br>335 | Tyr        |
| Ile        | Cys        | Leu        | Gly<br>340 | Ala        | Asn        | Thr        | Met        | Gly<br>345 | Tyr        | Ser        | Phe        | Arg        | Ser<br>350 | Ala        | Phe        |
| Leu        | Thr        | Val<br>355 | Leu        | Pro        | Asp        | Pro        | Lys<br>360 | Pro        | Pro        | Gly        | Pro        | Pro<br>365 | Val        | Ala        | Ser        |
| Ser        | Ser<br>370 | Ser        | Ala        | Thr        | Ser        | Leu<br>375 | Pro        | Trp        | Pro        | Val        | Val<br>380 | Ile        | Gly        | Ile        | Pro        |
| Ala<br>385 | Gly        | Ala        | Val        | Phe        | Ile<br>390 | Leu        | Gly        | Thr        | Leu        | Leu<br>395 | Leu        | Trp        | Leu        | Cys        | Gln<br>400 |
| Ala        | Gln        | Lys        | Lys        | Pro<br>405 | Cys        | Thr        | Pro        | Ala        | Pro<br>410 | Ala        | Pro        | Pro        | Leu        | Pro<br>415 | Gly        |
| His        | Arg        | Pro        | Pro<br>420 | Gly        | Thr        | Ala        | Arg        | Asp<br>425 | Arg        | Ser        | Gly        | Asp        | Lys<br>430 | Asp        | Leu        |
| Pro        | Ser        | Leu<br>435 | Ala        | Ala        | Leu        | Ser        | Ala<br>440 | Gly        | Pro        | Gly        | Val        | Gly<br>445 | Leu        | Cys        | Glu        |
| Glu        | His<br>450 | Gly        | Ser        | Pro        | Ala        | Ala<br>455 | Pro        | Gln        | His        | Leu        | Leu<br>460 | Gly        | Pro        | Gly        | Pro        |
| Val<br>465 | Ala        | Gly        | Pro        | Lys        | Leu<br>470 | Tyr        | Pro        | Lys        | Leu        | Tyr<br>475 | Thr        | Asp        | Ile        | His        | Thr<br>480 |
| His        | Thr        | His        | Thr        | His<br>485 | Ser        | His        | Thr        | His        | Ser<br>490 | His        | Val        | Glu        | Gly        | Lys<br>495 | Val        |
| His        | Gln        | His        | Ile<br>500 | His        | Tyr        | Gln        | Cys        |            |            |            |            |            |            |            |            |